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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/770,702

02/02/2004

Lev Korzinov

16491-022001

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20985 7590 03/06/2007  
FISH & RICHARDSON, PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER

BERTRAM, ERIC D

ART UNIT

PAPER NUMBER

3766

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/770,702	<b>Applicant(s)</b> KORZINOV ET AL.	
	<b>Examiner</b> Eric D. Bertram	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-19 and 26-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-19 and 26-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/13/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 13-19 and 26-46 have been considered but are moot in view of the new ground(s) of rejection.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 12/13/2006 was filed in compliance with the provisions of 37 CFR 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 14, 16-19, 26-38 and 40-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Zahorian et al. (US 5,524,631, hereinafter Zahorian). Zahorian discloses a method for determining a figure of merit for cardiac biological signals. Zahorian describes receiving a plurality of cardiac biological signals 2 from a patient using sensor 1, which includes information describing the heart beat and heart rate of the patient (Col. 4, lines 49-67). These signals are then processed to produce a plurality of heart rate estimates, and a figure of merit is determined for each estimate, wherein the figure of merit is based on the quality of the information, specifically continuity constraints and a measure of periodicity (Col. 8, lines 25-40). These figures

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of merit are then compared to each other and ranked to determine which has the highest ranking, and then the heart rate associated with that figure of merit is handled for medical purposes, while the rest are discarded (see figure 3 and Col. 8, lines 41-49).

5. Regarding claims 17, 18, 30, 31 and 41-43, Zahorian discloses that the estimates are taken over, and associated with, a period of approximately 0.5 seconds (Col. 8, lines 47-48). Furthermore, Zahorian describes determining which signal is the most meritorious by comparing and ranking the signals. Therefore, the signal with the highest figure of merit is placed in a determined to be in the "most meritorious" category.

6. Regarding claims 19, 35, 36, 40, 45 and 46, Zahorian discloses that the heart rate corresponding to the highest figure of merit is sent to a remote display or through a modem (Col. 9, lines 30-40).

7. Regarding claim 28, if the heart rate is found to be zero, this would inherently be identified as an asystole event.

8. Regarding claim 29, Zahorian discloses that the events are identified by based on a range of normal fetal heart rates (Col. 8, lines 33-36).

9. Regarding claims 33 and 44, Zahorian discloses a graph with a time stamped x-axis that displays the time with the most-meritorious events used to create the signal (see figure 8 and Col. 9, lines 40-47).

10. Claims 13-15 and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker, JR. et al. (US 2002/0137994 A1, hereinafter Baker). Baker discloses a method for determining the merit of cardiac biological signals to determine their quality. Baker describes receiving a plurality of cardiac biological signals

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describing events (par. [0035-0036]). A weight is assigned to the plurality of signals that is based on a plurality of variables, including signal-to-noise ratio and arrhythmia probability (higher probability = more severe condition) (see claim 15 and par. 0178). Based on these weights, certain events are used to determine a pulse rate, while some events may be rejected if they do not meet certain criteria (See abstract).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D. Bertram whose telephone number is 571-272-3446. The examiner can normally be reached on Monday-Thursday from 8:30-7 EST.

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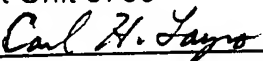
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric D. Bertram  
Examiner  
Art Unit 3766

EDB

Carl Layno  
Supervisory Patent Examiner  
Art Unit 3766

A handwritten signature in cursive script, reading "Carl H. Layno", is written over a horizontal line.

CARL LAYNO  
PRIMARY EXAMINER  
*ACTING SPE, AU 3766*